

AMENDMENTS TO THE CLAIMS:

Please amend the Claims as follows:

1 – 5. (Cancelled)

6. (Currently Amended) A production method for a purification catalyst for exhaust gas, wherein Pd and PdO are supported on an Al oxide and the Al oxide is (Ln: rare-earth metal) generated as a single phase and trigonal or rhombohedral, the method comprising:

preparing at least one kind of compound selected from a group of compounds of carboxylic acid having a hydroxyl group or a mercapto group and having a carbon number of 2 to 20, dicarboxylic acid having a carbon number of 2 or 3, and monocarboxylic acid having a carbon number of 1 to 20; and

adding at least one compound selected from the group to an aqueous nitrate solution including [[a]] Ln and Al component.

7. (Currently Amended) The production method for a purification catalyst for exhaust gas according to claim 6, the method comprising:

evaporating the aqueous carboxylic acid nitrate solution completely to produce a carboxylic acid complex polymer; and

heating the carboxylic acid complex polymer.

8. (Original) The production method for a purification catalyst for exhaust gas according to claim 7, wherein a heating temperature in the heating of the carboxylic acid complex polymer is not more than 1000°C.

9. (Cancelled)

10. (Cancel)

11. (Currently Amended) A purification catalyst for exhaust gas, comprising an LnAlO_3 (Ln : rare earth metal) supporting Pd, according to claim 12, wherein the catalyst is produced by adding at least one kind of compound selected from the group of compounds of carboxylic acid having a hydroxyl group or a mercapto group and having a carbon number of 2 to 20, dicarboxylic acid having a carbon number of 2 or 3, and monocarboxylic acid having a carbon number of 1 to 20 to aqueous nitrate solution including a component Ln and Al.

12. (Currently Amended) The A purification catalyst for exhaust gas according to claim 11, wherein the aluminum oxide comprising an Al oxide supporting Pd and aluminum oxide, where the AlO is (Ln : rare-earth) generated as a single phase and trigonal or rhombohedral.

13. (Currently Amended) The purification catalyst for exhaust gas according to claim [[12]] 11, wherein the catalyst is produced by evaporating the aqueous nitrate solution completely, to produce a carboxylic acid complex polymer and heating the carboxylic acid complex polymer.

14. (Currently Amended) The purification catalyst for exhaust gas according to claim [[12]] 13, wherein Pd is supported on LnAlO₃ in which Ln is a rare-earth metal, and an oxidation state of Pd in a surface supporting Pd is a state of Pd²⁺.

15. (Currently Amended) A Purification catalyst equipment for exhaust gas, comprising the purification catalyst for exhaust gas according to claim [[10 or]] 11 or 12.

16. (New) The purification catalyst for exhaust gas according to claim 12, wherein the purification catalyst is a powder having a surface-to-weight ratio of 8 m² or more.

17. (New) The purification catalyst for exhaust gas according to claim 13, wherein the carboxylic acid is malic acid.